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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/670,642

09/25/2003

Greg Opheim

30203/38289

6807

4743

7590

07/20/2009

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EXAMINER

VERDI, KIMBLEANN C

ART UNIT

PAPER NUMBER

2194

MAIL DATE

DELIVERY MODE

07/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/670,642

Applicant(s)

OPHEIM, GREG

Examiner

KimbleAnn Verdi

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. Claims 1 – 20 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/1/2009 has been entered.

Claim Objections

3. Claim 19 is objected to because of the following informalities: line 10, the recitation of "a storage device" should be a storage device module". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krivoshein (U.S. Patent No. 6,449,715, previously cited) in view of Zintel et al. (hereinafter Zintel) (U.S. Publication No. 2002/0035621 A1).**

6. **As to claim 1**, Krivoshein teaches a method of updating a host application running on a host system in a process plant (input routine 74 may create or update a device definition for each of the different devices within the remote I/O network wherein this device definition stores data needed to document and/or configure the device; col. 13, lines 36 – 60) wherein the host system (host workstations 14; col. 7, lines 30 – 57) is connected to one of a plurality of process control devices used in the process plant (communicates with devices within the device networks 30, 32, 34 and 36 and with the host workstations 14 to control a process; col. 7, lines 30 – 57), the method comprising:
updating the host application to include the device description (input routine 74 may create or update a device definition for each of the different devices within the remote I/O network wherein this device definition stores data needed to document and/or configure the device; col. 13, line 36 – col. 14, line 49).

7. Krivoshein does not specifically disclose sending a first command from the host system to the one of a plurality of process control devices within said plurality of process control devices to request a device description identification for the process control device;

receiving the device description identification at the host system from the process control device; and

downloading a device description associated with the device description identification into the host system using the device description identification.

8. However Zintel teaches sending a first command from the host system (user control point sends discovery request, Figure 14, discover service, Figure 28) to the one of a plurality of process control devices (controlled device, Figure 14, embedded computing device 900, Figure 28, paragraph [0524], lines 8-22) within said plurality of process control devices to request a device description identification (discovery response URL Figure 14, paragraph [0097], lines 1-7, response packet, Figure 28, paragraph [0554], lines 4-9) for the process control device (discovery request/phase, Figure 14 and Figure 28; paragraphs [0097], lines 1-6 and [0554], lines 4-9);

receiving the device description identification at the host system from the process control device (discovery response URL, Figure 14, response to discover, Figure 28, paragraph [0554], lines 4-9); and

downloading a device description associated with the device description identification into the host system using the device description identification (Get_HTTP XML and XML device description, Figure 28, paragraphs [0543], lines 1-5, and [0554], lines 1-5).

9. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Krivoshein to incorporate the features of Zintel. One of ordinary skill in the art would have been motivated to make the combination because this permits a computing device when introduced into a network to automatically configure so as to connect and interact with other computing devices available on the network, without a user installation experience and without downloading driver software or without persisting a configuration setup for connecting and interacting with such other computing devices (paragraph [0009], lines 7-12 of Zintel).

10. **As to claim 9**, this claim is rejected for the same reasons as claim 1 since claim 9 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Krivoshein as modified by Zintel teaches storing a first device description identification (discovery response URL Figure 14, paragraph [0097], lines 1-7, response packet, Figure 28, paragraph [0554], lines 4-9) identifying a first device description (description document 226, Figure 12 of Zintel) on a first process control device (controlled device 106, Figure 12, discovery response URL, Figure 14, response to discover, Figure 28, paragraph [0554], lines 4-9 of Zintel);

wherein the first device description is used to communicate with the first process control device (establish communication or enable communication between a field device and a controller or other device during runtime of the process control system 10; col. 13, lines 37 – 60 of Krivoshein);

determining if the host system includes the first device description using the first device description identification (col. 14, lines 23 – 50 of Krivoshein); and

automatically downloading the first device description onto the host system if the host system does not have the first device (Get_HTTP XML and XML device description, Figure 28, paragraphs [0543], lines 1-5, and [0554], lines 1-5 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

11. **As to claim 14**, this claim is rejected for the same reasons as claim 1 since claim 14 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Krivoshein as modified by Zintel teaches a computer system for updating a process control host application with a device description of a process control device (col. 13, lines 36 – 60 of Krivoshein), the computer system being connected to a device description database (col. 14, lines 23 – 50 of Krivoshein) via a communication network, the computer system comprising:

- a processing unit (col. 35, lines 1 – 22 of Krivoshein);
- a computer readable memory (col. 35, lines 1 – 22 of Krivoshein); and
- a software routine stored on the computer readable memory and executable on the processing unit (col. 34, lines 52 – 67 of Krivoshein) to:

- download the device description of the process control device from the device description database (description server 226, Figure 12 of Zintel) using the device description identification (Get_HTTP XML and XML device description, Figure 28, paragraphs [0543], lines 1-5, and [0554], lines 1-5 of Zintel). The motivation for

modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

12. **As to claim 19**, this claim is rejected for the same reasons as claim 1 since claim 19 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Krivoshein as modified by Zintel teaches a computer system for use in process plant having a plurality of process control devices and one or more process applications requiring communication with the plurality of process control devices [col. 13, lines 36 – 60 of Krivoshein], the computer system comprising:

a communication module (user control point, Figure 14 of Zintel) operable to request a device description identification (user control point sends discovery request, Figure 14, discover service, Figure 28 of Zintel) associated with one of the plurality of process control devices (controlled device, Figure 14, embedded computing device 900, Figure 28, paragraph [0524], lines 8-22 of Zintel) of said plurality of process control devices from the one process control device (discovery request/phase, Figure 14 and Figure 28; paragraphs [0097], lines 1-6 and [0554], lines 4-9 of Zintel);

a storage device (description client, Figure 12 of Zintel) operable to receive the device description from the one process control device (description server 228 of controlled device 106, Figure 12) and store the device description identification (retrieve description document which is downloaded to client, paragraphs [0241], lines 1-3 and p0543], lines 1-5 of Zintel) (user input routine 74 accesses the GSD file to obtain the

object type, the identification number, and the hardware and software release of the device revision; col. 21, line 65 – col. 22, lines 9 of Krivoshein);

a search module (simple discovery 924, Figure 27 of Zintel) operable to search for a device description database (description server 228, Figure 12 of Zintel) storing the device description identified by the device description identification (paragraphs [0214], lines 2-4, and [0542] – [0543], lines 1-5 of Zintel);

a downloading module (discovery client, Figure 12, of Zintel) operable to download a device description from the device description database (get description URL, response description, Figure 14, paragraphs [0241], lines 1-3 and [0543], lines 1-5 of Zintel); and

an updating module (input routine 70, Figure 2) operable to update one of the one or more process applications with the device description (col. 13, line 36 – col. 14, line 49 of Krivoshein). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

13. **As to claim 2**, Krivoshein as modified teaches downloading the device description includes downloading the device description from one of a CD-ROM, a diskette, and an online database (col. 14, lines 23 – 50 of Krivoshein and paragraph [0543], lines 1-5 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

14. **As to claim 3**, Krivoshein teaches updating the host application includes copying the device description into the host application (col. 13, line 36 – col. 14, line 49).

15. **As to claim 4**, Krivoshein teaches the host system is a system in a process plant and the device is one of a plurality of process control devices used in the process plant (col. 4, lines 17 – 45).

16. **As to claim 5**, Krivoshein as modified by Zintel teaches searching for the device description on the host system based on the device description identification (paragraphs [0214], lines 2-4, and [0542] – [0543], lines 1-5 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

17. **As to claim 6**, Krivoshein as modified by Zintel teaches downloading the device description includes: connecting the host system to a communication network (col. 13, lines 36 – 60 of Krivoshein); requesting the device description from a device description database connected to the communication network (col. 14, lines 23 – 50 of Krivoshein); and receiving the device description from the device description database (get description URL, response description, Figure 14, paragraphs [0241], lines 1-3 and [0543], lines 1-5 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

18. **As to claim 7**, Krivoshein teaches the device description database is one of a Fieldbus database, a Profibus database and a HART communication foundation database (col. 34, lines 52 – 67).

19. **As to claim 8**, Krivoshein as modified by Zintel teaches downloading the device description includes storing an Internet address of the device description database (discovery response URL, Figure 14 of Zintel) and using one of an Internet communication protocol and a wireless communication protocol to connect to the device description database (description client connects to description server 226, Figure 12, Get description URL, Figure 14, paragraphs [0241], lines 1-5, [0543], lines 1-5, and [0547], lines 1-3 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

20. **As to claim 10**, Krivoshein teaches storing the first device description information on the host system (col. 7, lines 30 – 57).

21. **As to claim 11**, Krivoshein as modified by Zintel teaches storing the first device description identification (col. 7, lines 30 – 57 of Krivoshein), determining if the host system is connected to the Internet (paragraphs [0120], lines 1-7 and [0121], lines 1-9 of Zintel), initiating an Internet session if the host system is connected to the Internet (discovery request, Figure 14, paragraph [0092], lines 1-6 of Zintel), and sending a request to a device description database connected to the Internet (Get description

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URL, Figure 14 of Zintel) for downloading the first device description onto the host system (description client connects to description server 226, Figure 12, Get description URL, Figure 14, paragraphs [0241], lines 1-5, [0543], lines 1-5, and [0547], lines 1-3 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

22. **As to claim 12**, Krivoshein teaches storing on the host system a list relating an identification of a device manufacturer to an Internet address of a device description database provided by the device manufacturer (col. 9, lines 13 – 60).

23. **As to claim 13**, Krivoshein as modified by Zintel teaches the host application is one of (1) an asset management system application (col. 15, line 57 – col. 16, line 33 of Krivoshein), (2) a plant simulation application, (3) a plant maintenance application (paragraph [0524], lines 16-22 of Zintel), (4) a plant monitoring application (paragraph [0524], lines 16-22 of Zintel), and (5) a process control application (col. 34, lines 36 – 54 of Krivoshein). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

24. **As to claim 15**, Krivoshein as modified by Zintel teaches the software routine is further executable on the processing unit to download the device description using one of an Internet protocol and a wireless communication protocol (TCP/IP, paragraphs [0093], lines 1-3, [0241], lines 1-5, [0531], lines 1-4, and [0547], lines 1-4 of Zintel).

The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

25. **As to claim 16**, Krivoshein as modified by Zintel teaches the software routine is further executable on the processing unit to identify a device description language source of the host application (paragraph [0242], lines 1-3 of Zintel), interpret the device description into the device description language source (paragraph [0242], lines 3-5 of Zintel) and insert the device description into the host application (col. 16, line 65 – col. 17, line 23 of Krivoshein). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

26. **As to claim 17**, this claim is rejected for the same reasons as claim 13 since claim 17 recites the same or equivalent invention, see the rejection to claim 13 above.

27. **As to claim 18**, Krivoshein as modified by Zintel teaches the software routine is further to update a remote host application located on a remote computer communicatively connected to the computer system (user control point, Figure 14, [0241], lines 1-5 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

28. **As to claim 20**, Krivoshein as modified by Zintel teaches the downloading module communicates with the device description database using the Internet protocol

(TCP/IP, paragraphs [0093], lines 1-3, [0241], [0243], lines 1-2, lines 1-5, [0531], lines 1-4, and [0547], lines 1-4 of Zintel). The motivation for modifying Krivoshein with the teachings of Zintel is the same as provided in the rejection of claim 1 above.

Response to Arguments

29. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

30. The prior art made of record on the accompanying PTO-892 and not relied upon, is considered pertinent to applicant's disclosure.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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33. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KV
July 18, 2009

/VAN H NGUYEN/
Primary Examiner, Art Unit 2194